

NISTTech

DEVICE AND METHOD FOR FORMATION OF VESICLES

This invention relates to a device and method for the formation of vesicles, and more particularly toward a device and method for creating an outer aqueous flowing stream sheathing an organic stream containing amphiphilic molecules for the formation of vesicles. NIST Docket No. 12-005, US Patent Application No. 2013-0168885 A1.

Abstract

<p>The invention consists of an annular stream of aqueous fluid that sheaths an intra-annular organic stream. The organic stream contains a mixture of amphiphilic molecules (most typically phospholipids). The annular sheathing creates physicochemical conditions in the aggregate co-flowing streams that are completely radially symmetric. As the mutually miscible aqueous and organic streams diffusively mix, the amphiphilic molecules self-assemble into liposomal vesicles. Adjustments of the flow rates and the device dimensions allows for control of the resultant vesicle size.</p>

References

- US Patent Application Publication

Status of Availability

This invention is available for licensing exclusively or non-exclusively in any field of use.

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